

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently amended) A method of promoting self-renewal of pluripotent cells in culture, comprising culturing pluripotent cells in a serum-free and feeder cell-free medium comprising an Id gene product.
2. (Previously presented) The method according to Claim 1, wherein the medium further comprises an activator of a gp130 downstream signalling pathway.
3. (Canceled)
4. (Previously presented) The method according to Claim 2, wherein the activator of a gp130 downstream signalling pathway is LIF.
5. (Previously presented) The method according to Claim 1, wherein the pluripotent cells are embryonic stem cells.
6. (Previously presented) The method according to Claim 5 wherein the embryonic stem cells are mouse cells or human cells.
7. (Canceled)

8. (Previously presented) The method according to Claim 1, further comprising inducing expression of an Id gene.
9. (Previously presented) The method according to Claim 8, wherein the expression of an Id gene is induced by genetically manipulating a pluripotent cell so that it expresses an Id gene.
10. (Previously presented) The method according to Claim 8, wherein the expression of an Id gene is induced by introducing into a pluripotent cell a vector comprising an Id gene.
11. (Previously presented) The method according to Claim 1 wherein the Id gene product is an Id protein.
12. (Currently amended) A method of promoting self-renewal of a pluripotent cell in culture in medium that is free of serum and feeder cells ~~free of serum~~ extract, comprising (1) expressing an Id gene or inducing expression of an Id gene in the pluripotent cell, or culturing the pluripotent cell in a serum-free and feeder cell-free medium containing an Id protein, and then (2) activating gp130 downstream signalling.
13. (Previously presented) The method according to Claim 12, comprising expressing an Id gene episomally in the cell.

14. (Previously presented) The method according to Claim 13 comprising expressing an id gene from an episomal vector comprising an inducible promoter.
15. (Currently amended) The method according to Claim 12, comprising activating gp130 downstream signalling by culturing the cell in a medium comprising a cytokine acting through gp130.
16. (Previously presented) The method according to Claim 15 wherein the cytokine is selected from the group consisting of LIF, CNTF, Cardiotrophin, Oncostatin M and a combination of IL-6 plus sIL-6 receptor.
- 17-27. (Canceled)
18. (Withdrawn/Currently amended) A method of culture of ES cells to promote ES cell self renewal in medium that is free of serum and free of serum extract, comprising maintaining the ES cells in a medium comprising:
- (a) an Id protein or a direct activator or effector of Id gene expression and/or Id protein activity, other than one acting through a receptor of the TGF- β superfamily; and
 - (b) an activator of a gp130 downstream signalling pathway.
28. (Currently amended) A method of obtaining a pluripotent cell in medium that is free of serum and feeder cells ~~free of serum extract~~, comprising

expressing an Id gene or inducing expression of an Id gene in a pluripotent cell in medium that is free of serum and feeder cells, or culturing a pluripotent cell in a serum-free and feeder cell-free medium containing an Id protein, and activating gp130 downstream signalling in the pluripotent cell, wherein the pluripotent cell is obtained from somatic cells or tissue of a fetus or adult.

29. (Previously presented) The method according to Claim 28, wherein the pluripotent cell is characterised by being positive for Rex1, Oct4 and nanog.
30. (Previously presented) A cell obtained by the method of Claim 28.
- 31-38. (Canceled)